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Demographics and Health Outcomes in a U.S. Probability Sample of Transgender Parents

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Nonrepresentative estimates indicate that 25%–50% of transgender people are parents. Yet very little is known about their demographic characteristics and health outcomes. The present study compared the quality of life and several mental health (i.e., psychological distress, life satisfaction, happiness, social well-being) and health (i.e., physical health, alcohol and drug use) dimensions by gender identity and parenthood status in a probability sample of 1,436 transgender and cisgender respondents to the U.S. Transgender Population Health Survey (TransPop study). An estimated 18.8% of transgender respondents were parents, with the majority (52.5%) being transgender women. After controlling for age, education, and relationship status, there were no significant differences between trans- and cisgender parents and their nonparent counterparts on any mental health or health dimensions. These findings are important to family practitioners and policymakers so that they do not mistakenly assume that any problems transgender parents may report reveal their unsuitability to parent. Rather, because differences in health outcomes were seen only across gender identities, such problems are more likely related to stigma and discrimination experiences in a cisgenderist/heterosexist society.

Keywords: transgender parents, childlessness, TransPop study, transgender mental health, transgender health behaviors

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It is estimated that 0.6% of adults identify as transgender[1] in the United States (Flores, Brown, & Herman, 2016). Further, nonrepresentative surveys of the transgender population have found that between a quarter and one half report being parents (Grant et al., 2011; James et al., 2016; Stotzer, Herman, & Hasenbush, 2014). These figures are likely underestimates, given the difficulties in collecting comprehensive demographic information about this group because few national surveys ask about gender identity

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[1] We use the term *transgender* throughout the article for the sake of readability and to be consistent with the main categorization used in the TransPop study (Meyer, Bockting, Herman, Reisner, & Choi, 2016). However, we acknowledge the complexities and varieties of individual personal identities of people whose gender identity and/or gender role do not conform to what is typically associated with their sex assigned at birth. Also, we further acknowledge that these individuals may not identify as transgender if they could describe their gender identity in their own words (American Psychological Association, 2015).

(Herman, 2014). Additionally, population-based surveys rarely ask how transgender people became parents (see Stotzer et al., 2014).

Just as parenthood is not a monolithic experience for cisgender people, transgender parenting arrangements vary in their structure and contours. Transgender people may become parents through adoption or gestational surrogacy using their own or donor gametes, give birth to biologically related children with or without the use of assisted reproduction, become foster parents or guardians of children who are or are not biologically related, or have children in the context of blended families (Pfeffer & Jones, 2020). Each of these pathways depends on several factors, including the experience or timing of gender transition, their current relationship status, the desire for biological relatedness, access to fertility services, financial feasibility, infertility due to gender-affirming treatment, and legal complications (Tornello & Bos, 2017; Tornello, Riskind, & Babić, 2019; Walls, Kattari, & DeChants, 2018; Walls, Kattari, Speer, & Kinney, 2019).

Contrary to cisgender parenthood, however, transgender parenthood arises in a context of systemic barriers, extensive discrimination, social stigma (James et al., 2016), ongoing pathologization of transgender people (Ansara & Hegarty, 2012), and lack of human rights protections (Hunt, 2012). Under these circumstances, transgender people's intentions and efforts to become parents, as well as multiple aspects of their adjustment, may be undermined. Thus, much remains to be known about how transgender parents fare (Hafford-Letchfield et al., 2019; Pfeffer & Jones, 2020). In addition, given the small sample sizes of transgender people in most studies, there is little information about the race and ethnicity of transgender parents (Stotzer et al., 2014). One exception was the U.S. *Injustice at Every Turn* report, based on the 2008–2009 National Transgender Discrimination Survey, which found that American Indian respondents had the highest rates of being parents and having a child who currently relied on their income (Grant et al., 2011). Other demographic information, such as employment, education, socioeconomic status, sexual orientation, and relationship status, remains largely unknown from population-based sources.

The present study was the first to use a national probability sample to present a detailed, representative picture of the sociodemographic characteristics of transgender parents, as well as to compare the effects of parenthood and gender identity on quality of life and a number of mental health (i.e., psychological distress, life satisfaction, happiness, social well-being) and health (i.e., physical health, alcohol and drug use) dimensions in transgender and cisgender people. For the study purpose, we will foreground transgender parents throughout this article. The study combines minority stress theory (Meyer, 2003, 2015) with parenthood effects theories (Nelson, Kushlev, & Lyubomirsky, 2014; Nomaguchi & Milkie, 2020; Umberson, Pudrovska, & Reczek, 2010), which help account for potential variations in health outcomes across gender identities and parenthood status.

Theoretical Frameworks for Health Outcomes in Transgender Parents

Transgender parents must navigate multiple, somewhat contradictory roles in the attempt to integrate their parenting and gender identities. Although, in fact, being a parent represents a social location of power and privilege, a transgender identity is likely a source of oppression (Griffin, 2007). This implies that the effects of parenthood on health outcomes interlock with people's own gender identity (Haines, Ajayi, & Boyd, 2014). In this vein, research has documented that across the life span, transgender people are at higher risk of poor mental health, suicidality, and unhealthy behaviors (Downing & Przedworski, 2018; Henderson, Blosnich, Herman, & Meyer, 2019) than cisgender people. Minority stress theory (Meyer, 2003, 2015) has offered a straightforward explanation for such adverse outcomes in the context of a cisgenderist/heterosexist society.

To the best of our knowledge, there are no studies on the health of transgender parents. Some indication, however, may be extrapolated by the small, but emergent, literature on sexual minority parents (e.g., Erez & Shenkman, 2016; Goldberg, Smith, McCormick, & Overstreet, 2019; Shenkman, Siboni, Tasker, & Costa, 2020), who share similar multiple identities with gender minority parents. In an exploratory study on health behaviors and outcomes of lesbian and gay parents, Goldberg and colleagues (2019) found that same-sex parents with multiple children and those who were unmarried were less likely to exercise, and those with high stress were more likely to be depressed and to have a chronic health condition. Taken together, these findings suggest that minority stress theory (Meyer, 2003, 2015) and general theories on the effect of parenthood on well-being (for reviews, see Nelson et al., 2014; Nomaguchi & Milkie, 2020; Umberson et al., 2010) might help us understand the challenges of transgender parenthood.

In line with the value-of-children theory (Hoffman & Hoffman, 1973) and self-determination theory (Deci & Ryan, 2008), children fulfill different parental needs throughout their entire lives, such as serving as a source of entertainment, expanding the sense of self, creating a social identity, and generating economic utility. This effect might be particularly relevant for transgender parents who, in spite of experiencing discrimination and stigma, likely view parenthood as a happy triumph over the widespread message that they are not supposed to become parents (Hafford-Letchfield et al., 2019; Pyne, Bauer, & Bradley, 2015). Becoming parents, in turn, might boost their overall health. Parenthood may also provide transgender individuals with new opportunities to develop relationships with cisgender parents and other transgender parents, as well as feelings of autonomy and control that contrast with prior experiences of stigma and discrimination (Griffin, 2007).

Conversely, the demand-and-reward theory (Nomaguchi & Milkie, 2003) would suggest that, as for cisgender people (Nelson et al., 2014; Nomaguchi & Milkie, 2020; Umberson et al., 2010), parenthood might have both positive and negative effects on transgender people's health because it introduces new challenges and opportunities as individuals restructure their lives, take on additional responsibilities, and adjust their previous roles to include parenting. In cases where changes in overall workload and family-related demands add to previous difficult family and life circumstances (e.g., when transgender parents have ongoing custodial disputes with ex-partners or navigated quite complex and stressful routes to achieve parenthood), transgender parents may report worse health outcomes. Finally, set-point theory (Headey & Wearing, 1989) would predict that transgender parents might experience only a temporary (negative or positive) effect on their health because all people have a stable baseline level of well-being that is determined by other, more salient factors (e.g., personality traits, genetics). In this vein, after major life events such as having

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a child, transgender parents might eventually adapt to their new situation and then return to their initial baseline level of functioning.

Relying on the aforementioned theories, studies with cisgender heterosexual parents have generated conflicting findings, with some indicating that parenthood is associated with better health-related outcomes, others suggesting the reverse, and a very few pointing to no effect (cf. Nelson et al., 2014; Nomaguchi & Milkie, 2020; Umberson et al., 2010, for reviews). Yet there is major agreement on the sociodemographic factors that positively influence parental health, such as the parent's male gender, the child's adult age, a marital relationship, full-time employment, high socioeconomic status, and minor children living with the parents (Nelson et al., 2014). It remains to be seen whether, and to what extent, these findings extend to transgender parents.

The Present Study

The aim of the present study was to investigate the quality of life and several mental health (i.e., psychological distress, life satisfaction, happiness, social well-being) and health (i.e., physical health, alcohol and drug use) dimensions in a U.S. probability sample of trans- and cisgender parents and nonparents. Data came from the U.S. Transgender Population Health Survey (TransPop study), which was the first national probability sample of transgender people in the United States (Meyer et al., 2016). In light of the mixed parenthood-effects theories reviewed previously (Nelson et al., 2014; Nomaguchi & Milkie, 2020; Umberson et al., 2010), two competing hypotheses were formulated:

> *Hypothesis 1:* Main effect of parenthood hypothesis. Both trans- and cisgender parents would score *better* than trans- and cisgender nonparents in their health outcomes because parenthood is an important developmental experience that can be very fulfilling and satisfying, as predicted by the value-of-children theory (Hoffman & Hoffman, 1973) and the self-determination theory (Deci & Ryan, 2008).

> *Hypothesis 2:* Gender identity by parenthood status hypothesis. Transgender parents would score *lower* on their health outcomes than the other three groups (transgender nonparents, cisgender parents, and cisgender nonparents) because of the intersection between workload and family-related demands following parenthood (Nomaguchi & Milkie, 2003), the quite complex routes some transgender people must navigate to have children (Tornello & Bos, 2017; Tornello et al., 2019), and their gender minority status (Meyer, 2003, 2015).

Method

Participants and Recruitment

In the TransPop study, trans- and cisgender participants were screened by Gallup, Inc., which recruited a probability sample of U.S. adults by using random digit dialing (RDD) to reach both cell-phone and landline users and by address-based sampling (ABS). Using a two-step screening process that first asked for sex assigned at birth and then asked about gender identity, transgender individuals were recruited during two periods, April 2016–August 2016 (Period 1) and June 2017–December 2018 (Period 2), and cisgender individuals were recruited from February 2018 to December 2019 (Krueger, Divsalar, Luhur, Choi, & Meyer, 2020). Trans- and cisgender people were also screened for three further eligibility criteria: adult over age 18, education above sixth grade, and conducted the interview in English. Trans- and cisgender people who met the eligibility criteria were invited to complete a self-administered questionnaire via either an e-mail link or a mailed questionnaire with a prestamped, preaddressed return envelope. Included with their invitation to participate was a $25 gift certificate. The final data set comprised 1,436 respondents representing the U.S. population of transgender (n = 274) and cisgender (n = 1,162) individuals as defined by the TransPop survey measures. The complete methodological procedure is reported by Krueger et al. (2020). The study protocol was reviewed and approved by the Gallup Institutional Review Board (IRB); the University of California, Los Angeles (UCLA) IRB; and the IRBs of collaborating institutions through reliance on the UCLA IRB.

Measures

Parenthood status. Participants were identified as parents through the following question: "Do you have any children?" (responses: yes, no).

Demographic characteristics. The following demographic characteristics were included in the survey: sex assigned at birth, gender identity, age (in years), age of children and current living arrangement (only for those who were parents), race/ethnicity, born in the United States, urbanicity, U.S. Census region, education, living in poverty, household income, sexual orientation, relationship status, gender identity of current partner, length of current relationship, and legal relationship status.

Health outcomes. Eight health-related outcomes were examined.

Psychological distress. The Kessler-6, a six-item scale from the National Comorbidity Survey (Kessler et al., 2003), assessed psychological distress in the past 30 days (e.g., "nervous," "hopeless"). Responses were recorded on a 5-point scale ranging from *All of the time* (= 1) to *None of the time* (= 5). All items were first reverse-coded, and then a total mean score was calculated for each participant, with higher values indicating more psychological distress. Cronbach's alphas were .91 and .88 for the trans- and cisgender samples, respectively.

Life satisfaction. The Satisfaction With Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) assessed participants' global satisfaction with life (e.g., "The conditions of my life are excellent") and comprised five items that were rated on a 7-point Likert scale ranging from *Strongly disagree* (= 1) to *Strongly agree* (= 7). A total mean score was calculated for each participant, with higher values representing greater satisfaction with life. Cronbach's alphas were .90 and .90 for the trans- and cisgender samples, respectively.

Social well-being. The Social Well-Being Scale (Keyes, 1998) assessed appraisal of personal circumstances and functioning in society and consisted of 15 items (e.g., "I don't feel I belong to anything I'd call a community"). Each item was rated on a 7-point Likert scale ranging from *Strongly disagree* (= 1) to *Strongly agree* (= 7). A total mean score was calculated for each participant, with higher values representing greater well-being.

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Cronbach's alphas were .81 and .79 for the trans- and cisgender samples, respectively.

Happiness. A single item was used to assess happiness (i.e., "Generally, how would you say things are these days in your life? Would you say . . ."), to which participants could respond on a 3-point Likert scale: *Very happy* = 1, *Quite happy* = 2, *Not too happy* = 3. Scores were then reversed so that higher scores on this item represented more happiness.

Quality of life. A single item was used to assess quality of life (i.e., "Would you say that in general your health is . . ."), to which participants could respond on a 5-point Likert scale (1 = *Poor*, 5 = *Excellent*). Higher scores on this scale indicated better quality of life.

Alcohol use. The three-item Alcohol Use Disorder Identification Test (AUDIT-C; Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998) was designed to identify persons with hazardous drinking behavior or alcohol use disorders (e.g., "How often do you have a drink containing alcohol?"; 0 = *never*, 4 = *4 or more times a week*). The scale was then created as the sum of all variables in the scale, with scores ranging from 0 to 12. Higher scores indicated more frequent alcohol use. Cronbach's alphas were .77 and .74 for the trans- and cisgender samples, respectively.

Drug use. The Drug Use Disorders Identification Test (DUDIT; Berman, Bergman, Palmstierna, & Schlyter, 2003), an 11-item scale, was designed to identify individuals with drug-related problems. Sample items include, "Do you use more than one type of drug on the same occasion?" (0 = *never*, 4 = *4 or more times a week*) and "How many times do you take drugs on a typical day when you use drugs?" (0 = *0*, 4 = *7 or more*). The scale was created as the sum of all variables in the scale, with scores ranging from 0 to 44. Higher scores indicated more frequent drug use. Cronbach's alphas were .87 and .86 for the trans- and cisgender samples, respectively.

Physical health. Physical health was calculated by asking participants, "Have you ever been told by a doctor or health professional that you had any of the following?"; this was followed by 23 physical health problems (e.g., hypertension/high blood pressure, high cholesterol, HIV/AIDS; questions drawn and modified from the National Center for Health Statistics, 2015). The final total score ranged from 0 to 23, with higher scores indicating worse physical health.

Data Analysis

All of the following analyses were conducted in SPSS Version 25 using survey weights through the Complex Samples module in order to allow for generalization to the U.S. population of trans- and cisgender adults aged 18 and above. Such an approach implies that unweighted sample sizes (n) and weighted percentages (%) do not coincide either in the text or in the tables. To impute values on missing data, a single imputation by chained equations (fully conditional specification) using predictive mean matching (Little, 1988), was performed. Detailed information about missing data are available in Krueger et al. (2020). Bivariate differences on categorical demographic variables based on gender identity, parenthood status, and gender identity by parenthood status were assessed using Rao–Scott design-adjusted F tests (categorical variables). In cases of significant differences in categorical variables, adjusted residuals (ARs) < -1.96 or > 1.96 were interpreted as indicating that the number of cases in that cell was, respectively, significantly smaller or larger than would be expected if the null hypothesis were true, with a significance level of .05 (Haberman, 1973).

Next, nine general linear models in the Complex Sample menu (CSGLM) with binary predictor variables were performed to assess whether age and health outcomes varied as a function of gender identity, parenthood status, and their interaction, using the Wald F statistic. When overall differences in continuous variables were detected across sexual identities by parenthood status, post hoc adjusted Wald tests, incorporating Bonferroni corrections for multiple comparisons, were conducted. CSGLM covariates were those that differed significantly across both gender identities and parenthood status, to be described later in the article. Then, each variable was introduced separately and retained in the final model only if it provided significant prediction when tested in isolation ($p < .05$). This procedure led to excluding age from the model with social well-being as an outcome ($p = .583$) and excluding relationship status from the model with quality of life ($p = .195$), drug use ($p = .182$), and physical health ($p = .054$) as outcomes.

Finally, to detect the power achieved by all previous analyses, a post hoc power analysis was run using G*Power software. Alpha levels were set to .05. For Rao–Scott design-adjusted F tests, f^2 levels were set to .10, .30, and .50, to measure small, medium, and large effect sizes, respectively (Cohen, 1988), whereas for the general linear models, f^2 levels were set to .02, .15, and .35, respectively.

Results

Demographics

In the transgender group, 37.8% were transgender women, 30.9% were transgender men, and 31.3% were nonbinary. In the cisgender group, 52% were women, and 48% were men. In the whole sample, about two thirds (68.1%) were parents, and one third (31.9%) were nonparents. A closer inspection indicated that a large majority of transgender people were nonparents (81.2%), whereas most cisgender people were parents (68.3%). Relative to cisgender parents, transgender parents were more likely to have at least one child younger than 18 years (AR = 2.13). In the following discussion, for the sake of conciseness, only significant main effects of gender identity and parenthood status, and their interaction, are reported. Complete demographic characteristics are presented in Table 1 using unweighted sample sizes (n) and weighted percentages.

Main effect of gender identity. Relative to cisgender people, transgender people were significantly younger, less likely to be White (AR = −3.32), and more likely to live in poverty (AR = 2.50); they were also more likely to have a household income of \$1,000–\$24,999 (AR = 3.43) but less likely to have a household income of \$75,000–\$99,999 (AR = −5.71). Transgender people had lower levels of education, with more transgender individuals having a high school degree or less (AR = 2.52), and cisgender individuals were more likely to have graduated from college (AR = 2.17) or obtained a postgraduate degree (AR = 2.89).

Transgender people less often identified as straight/heterosexual (AR = −18.82) and more often identified as lesbian/gay (AR = 2.97), as bisexual (AR = 2.62), or with another sexual orientation

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Table 1
Survey-Weighted Sociodemographics of the Sample, by Gender Identity, Parenthood, and Their Interaction

	Gender identity (N = 1,436)			Parenthood (N = 1,384)			Interaction (N = 1,384)				
Variables	T (N = 274; 0.4%) M (SE)	C (N = 1,162; 99.6%) M (SE)	F(df)	P (N = 901; 68.1%) M (SE)	NP (N = 483; 31.9%) M (SE)	F(df)	TP (N = 66; 18.8%) M (SE)	TNP (N = 206; 81.2%) M (SE)	CP (N = 835; 68.3%) M (SE)	CNP (N = 277; 31.7%) M (SE)	F(df)
Age (in years)[a]	34.24 (1.09)	49.42 (0.81)	124.88*** (1,1435)	55.49 (0.81)	36.83 (1.28)	152.23*** (1,1383)	49.00 (2.34)	30.79 (1.07)	55.49 (0.81)	36.90 (1.29)	128.85*** (3,1381)
	N (%)	N (%)		N (%)	N (%)		N (%)	N (%)	N (%)	N (%)	
Sex assigned at birth			0.26 (1,1435)			2.14 (1,1435)					2.17 (1,1526)
Female	130 (54.3)	606 (52.0)		467 (54.8)	241 (47.9)		19 (38.1)	109 (57.6)	448 (54.9)	132 (47.8)	
Male	144 (45.7)	556 (48.0)		434 (45.2)	242 (52.1)		47 (61.9)	97 (42.4)	387 (45.1)	145 (52.2)	
Gender identity			—			4.57* (1,1558)					—
Cisgender man	—	556 (48.0)		387 (45.1)	145 (51.6)		—	—	387 (45.2)	145 (52.2)	
Cisgender woman	—	606 (52.0)		448 (54.8)	132 (47.2)		—	—	448 (54.9)	132 (47.8)	
Transgender man	78 (30.9)	—		8 (0)	68 (0.4)		8 (11.7)	68 (34.6)	—	—	
Transgender woman	120 (37.8)	—		41 (0.1)	79 (0.4)		41 (52.5)	79 (34.8)	—	—	
Transgender nonbinary	76 (31.3)	—		17 (0)	59 (0.3)		17 (35.8)	59 (30.6)	—	—	
Have children?[b]			161.84*** (1,1435)			—					—
Yes	66 (18.8)	835 (68.3)		—	—		—	—	—	—	
No	206 (81.2)	277 (31.7)		—	—		—	—	—	—	
Missing	2	50		—	—		—	—	—	—	
Minor or adult children			—			—					4.47* (1,1435)
At least one child <18 years	—	—		—	—		29 (60.1)	—	222 (41.9)	—	
All children >18 years	—	—		—	—		35 (39.9)	—	591 (58.1)	—	
Missing	—	—		—	—		2		22		
Child coresidence			—			—					0.01 (1,1435)
At least one child living with the parent	—	—		—	—		29 (55.5)	—	323 (54.7)	—	
No child living with the parent	—	—		—	—		35 (44.5)	—	490 (45.3)	—	
Missing	—	—		—	—		2		22		
Race/ethnicity			5.76*** (4,5655)			0.37 (4,5659)					0.46 (4,6024)
White	187 (56.5)	961 (72.3)		738 (73.3)	371 (72.6)		44 (55.2)	141 (56.4)	694 (73.3)	230 (72.8)	
Black	21 (9.5)	58 (11.1)		40 (11.0)	34 (9.3)		3 (8.3)	18 (9.8)	37 (11.0)	16 (9.3)	
Latinx	26 (15.7)	63 (9.2)		49 (8.4)	35 (9.8)		7 (16.5)	19 (15.7)	42 (8.4)	16 (9.7)	
Multirace	24 (10.4)	49 (4.5)		48 (4.8)	24 (4.1)		8 (13.4)	16 (9.8)	40 (4.8)	8 (4.0)	
Other[c]	16 (7.9)	31 (3.0)		26 (2.5)	19 (4.2)		4 (6.7)	12 (8.2)	22 (2.5)	7 (4.2)	
Born in United States			0.49 (1,1435)			0.02 (1,1435)					0.03 (1,1524)
Yes	251 (93.7)	1,056 (95)		845 (94.9)	455 (95.1)		59 (91.6)	192 (94.2)	786 (94.9)	263 (95.2)	
No	21 (6.3)	54 (5.0)		49 (5.1)	26 (4.9)		7 (8.4)	14 (5.8)	42 (5.1)	12 (4.8)	
Missing	2	52		7	2		0	0	7	2	
Urbanicity			0.72 (1,1435)			12.27*** (1,1435)					11.79*** (1,1525)
Nonurban	57 (17.2)	262 (20.0)		222 (24.6)	87 (11.9)		15 (19.4)	42 (16.8)	207 (24.6)	45 (11.8)	
Urban	217 (82.8)	900 (80.0)		679 (75.4)	396 (88.1)		51 (80.6)	164 (83.2)	628 (75.4)	232 (88.2)	
Census region			2.03 (3,4304)			0.58 (3,4297)					0.58 (3,4570)
Northeast	54 (18.7)	219 (17.7)		165 (18.4)	99 (17.4)		12 (13.5)	42 (20.0)	153 (18.4)	57 (17.4)	
Midwest	50 (19.9)	292 (22.5)		237 (23.5)	93 (20.9)		13 (22.6)	37 (19.5)	224 (23.5)	56 (20.9)	
South	71 (30.0)	378 (37.1)		292 (37.2)	141 (35.8)		17 (31.1)	53 (29.4)	275 (37.2)	88 (35.8)	
West	97 (31.4)	273 (22.7)		205 (20.9)	150 (26.0)		22 (32.9)	74 (31.1)	183 (20.9)	76 (25.9)	
Missing	2	0		2	0		2	0	0	0	
Level of education			4.34 (3,3847)			5.33** (3,3766)					5.29** (3,3957)
High school or less	58 (44.1)	169 (31.9)		146 (36.5)	75 (22.1)		10 (34.5)	48 (46.5)	136 (36.5)	27 (21.8)	
Some college	100 (31.2)	387 (31.6)		296 (27.4)	174 (40.3)		24 (29.6)	74 (30.8)	272 (27.4)	100 (40.4)	
College degree	60 (14.3)	301 (19.9)		216 (18.7)	135 (23.4)		11 (18.1)	49 (13.6)	205 (18.7)	86 (23.5)	
More than college	52 (10.5)	305 (16.6)		240 (17.4)	98 (14.3)		18 (17.8)	34 (9.0)	222 (17.4)	64 (14.3)	
Missing	4	0		3	1		3	1	0	0	
Living in poverty			9.10 (1,1435)			0.04 (1,1435)					0.22 (1,1525)
No	209 (72.8)	1,042 (83.9)		815 (84.2)	391 (83.5)		56 (81.7)	152 (70.7)	759 (84.2)	239 (83.6)	

(*table continues*)

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Table 1 (*continued*)

Variables	Gender identity (N = 1,436) T (N = 274; 0.4%) M (SE)	C (N = 1,162; 99.6%) M (SE)	F(df)	Parenthood (N = 1,384) P (N = 901; 68.1%) M (SE)	NP (N = 483; 31.9%) M (SE)	F(df)	Interaction (N = 1,384) TP (N = 66; 18.8%) M (SE)	TNP (N = 206; 81.2%) M (SE)	CP (N = 835; 68.3%) M (SE)	CNP (N = 277; 31.7%) M (SE)	F(df)
Yes	65 (27.2)	120 (16.1)		86 (15.8)	92 (16.5)		10 (29.3)	54 (29.3)	76 (15.8)	38 (16.4)	
Household income			7.07 (4,5612)			0.41 (4,5638)					0.50 (4,5970)
No income	7 (2.2)	15 (2.5)		12 (2.6)	10 (2.5)		2 (4.0)	5 (1.8)	10 (2.6)	5 (2.5)	
$1,000–$24,999	90 (36.1)	202 (20.2)		148 (19.3)	135 (22.0)		17 (26.2)	73 (38.8)	131 (19.3)	62 (21.8)	
$25,000–$49,999	61 (23.3)	211 (20.7)		169 (20.3)	96 (23.7)		18 (30.8)	42 (21.1)	151 (20.3)	54 (23.7)	
$50,000–$74,999	46 (17.1)	216 (15.8)		167 (17.0)	93 (15.4)		6 (10.7)	40 (18.8)	161 (17.0)	53 (15.3)	
$75,000–$99,999	70 (21.2)	518 (40.8)		405 (40.8)	149 (36.4)		23 (28.3)	46 (19.6)	382 (40.8)	103 (36.6)	
Sexual orientation			122.72*** (2,3629)			12.07*** (3,3741)					15.19*** (3,4129)
Straight/heterosexual	56 (17.3)	1040 (89.2)		808 (94.4)	257 (77.8)		15 (13.7)	40 (17.6)	793 (94.5)	217 (78.5)	
Lesbian/gay	47 (16.9)	32 (2.6)		13 (0.4)	65 (7.6)		9 (15.3)	38 (17.5)	4 (0.4)	27 (7.5)	
Bisexual	47 (18.1)	28 (4.3)		25 (2.9)	49 (7.6)		14 (26.1)	33 (16.4)	11 (2.9)	16 (7.5)	
Another[d]	120 (47.6)	28 (4.0)		42 (2.3)	104 (7.1)		28 (44.9)	91 (48.5)	14 (2.2)	13 (6.6)	
Missing	4	34		13	8		0	4	13	4	
In relationship			14.18*** (1,1435)			26.64*** (1,1435)					23.76*** (1,1519)
Yes	152 (57.8)	832 (73.5)		687 (80.9)	275 (59.6)		45 (76.6)	106 (53.2)	642 (80.9)	169 (59.7)	
No	120 (42.2)	296 (26.5)		201 (19.1)	201 (40.4)		21 (23.4)	98 (46.8)	180 (19.1)	103 (40.3)	
Missing	2	34		13	7		0	2	13	5	
Length of current relationship			31.57*** (3,4520)			19.99*** (4,5447)					19.59*** (4,5706)
5 years or less	88 (69.4)	158 (25.7)		99 (15.3)	143 (55.7)		15 (48.5)	73 (77.0)	84 (15.3)	70 (55.5)	
6–10 years	27 (18.4)	89 (15.2)		68 (15.1)	46 (16.6)		7 (18.9)	20 (18.4)	61 (15.1)	26 (16.6)	
11–15 years	11 (5.2)	64 (7.4)		60 (8.6)	13 (4.2)		7 (12.9)	3 (1.5)	53 (8.6)	10 (4.3)	
16–20 years	5 (1.2)	69 (9.5)		54 (9.8)	17 (7.9)		3 (3.4)	2 (0.5)	51 (9.8)	15 (8.0)	
21 years or more	18 (5.8)	421 (42.1)		381 (51.2)	50 (15.5)		11 (16.3)	7 (2.6)	370 (51.2)	43 (15.7)	
Missing[e]	3	31		25	6		2	1	23	5	
Current-partner gender identity[f]			31.95*** (2,2773)			10.55*** (2,2417)					11.18*** (2,2956)
Cisgender	110 (62.1)	799 (97.4)		652 (99.4)	238 (90.8)		33 (66.7)	76 (60.1)	619 (99.4)	162 (91.1)	
Transgender	16 (15.3)	3 (1.00)		6 (0.2)	13 (3.9)		5 (15.2)	11 (15.5)	1 (0.1)	2 (3.8)	
Nonbinary/genderqueer	25 (22.6)	3 (1.6)		7 (0.4)	21 (5.3)		6 (18.1)	19 (24.5)	1 (0.4)	2 (3.5)	
Missing[e]	1	27		22	3		1	0	21	3	
Living with current partner[f]			24.98*** (1,1435)			35.75*** (1,1435)					34.24*** (1,1545)
Yes	100 (61.1)	692 (84.4)		589 (90.8)	186 (65.9)		35 (79.5)	64 (54.4)	554 (90.8)	122 (66.1)	
No	51 (38.9)	115 (15.6)		79 (9.2)	85 (34.1)		9 (20.5)	42 (45.6)	70 (9.2)	43 (33.9)	
Missing[e]	1	25		19	4		1	0	18	4	
Current relationship legal status[f]			90.02*** (1,1435)			47.43*** (1,1435)					46.19*** (1,1525)
Legally married/legally registered civil union/registered domestic partnership	59 (26.8)	626 (73.1)		547 (82.0)	123 (46.7)		29 (52.9)	29 (16.9)	518 (82.0)	94 (47.0)	
Not married	92 (73.2)	183 (26.9)		122 (18.0)	149 (53.3)		15 (47.1)	77 (83.1)	107 (18.0)	72 (53.0)	
Missing[e]	1	23		18	3		1	0	17	3	

Note. *M* = mean; *SE* = standardized error; *df* = degrees of freedom; T = transgender; C = cisgender; P = parent; NP = nonparent; TP = transgender parent; TNP = transgender nonparent; CP = cisgender parent; CNP = cisgender nonparent. All percentages are weighted using TransPop study weights; all *n*s unweighted. Percentages may not add to 100.0% because of weighting and/or rounding. For crosstabs other than 2 × 2, degrees of freedom are rounded. When missing data were reported, they were not included in the chi-square test of independence. For categorical data, the *F* test is based on the second-order Rao–Scott adjusted chi-square statistic, whereas for age, the Wald's *F* was used.

[a] Post hoc multiple comparisons, incorporating Bonferroni corrections: TP > TNP, $p < .001$; TP < CP, $p = .009$; TP > CNP, $p = .023$; CP > TNP, CNP, $p < .001$; TNP > CNP, $p < .001$. [b] Child(ren) under age 18 living with the parent: unweighted $n = 233$ (transgender, unweighted $n = 20$; cisgender, unweighted $n = 213$); child(ren) under age 18 not living with the parent: unweighted $n = 27$ (transgender, unweighted $n = 11$; cisgender, unweighted $n = 16$); child(ren) 18 years or older living with the parent: unweighted $n = 154$ (transgender, unweighted $n = 11$; cisgender, unweighted $n = 143$); child(ren) 18 years or older not living with the parent: unweighted $n = 604$ (transgender, unweighted $n = 36$; cisgender, unweighted $n = 568$). Respondents could indicate more than one option; thus, the unweighted *n*s exceed 66 for transgender parents and 835 for cisgender parents. [c] "Other" comprises participants with an American Indian/Native American or any other self-reported racial/ethnic background. [d] "Another" refers to participants with a queer, same-gender loving, pansexual, asexual, or any other self-reported sexual orientation. [e] Missing values were calculated only considering respondents in a relationship. [f] Current-partner gender identity, living with current partner, and current-relationship legal status are only reported for respondents currently in a relationship. Therefore, unweighted *n*s for the main effect of gender identity and parenthood are 984 and 962, respectively.

* $p < .05$. ** $p < .01$. *** $p < .001$.

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(e.g., queer, same-gender loving, pansexual, asexual; AR = 5.46), relative to cisgender people. More than half of transgender individuals were in a relationship, although significantly fewer than cisgender individuals (AR = −3.37). Among those in a relationship, transgender individuals were less likely to be in a relationship with a cisgender individual (AR = −3.02); less likely to live with their current partner (AR = −3.73); and less likely to be legally married, in a legally registered civil union, or in a registered domestic partnership (AR = −9.52) than cisgender individuals. Overall, transgender people reported relationships of shorter duration than cisgender people. Specifically, more transgender individuals were in a relationship of 5 years or less (AR = 8.00), whereas only a minority had been partnered for 16–20 years (AR = −13.47) or 21 years or more (AR = −19.24). There was no significant main effect for gender identity in sex assigned at birth, urbanicity, born in the United States, and U.S. Census region of residence.

Main effect of parenthood status. Parents were less likely than nonparents to be transgender men (AR = −16.35), transgender women (AR = −7.96), or transgender nonbinary (AR = −7.71). Furthermore, parents were significantly older, more likely to live in nonurban areas (AR = 4.06), and more likely to have a high school diploma or less (AR = 2.95), relative to nonparents, who, conversely, were more likely to have attended some college (AR = 2.93). Almost all parents identified as straight/heterosexual (AR = 5.29), whereas nonparents more frequently had a lesbian/gay (AR = 10.39) or another sexual orientation (AR = 2.32).

More parents (AR = 4.81) than nonparents were in a relationship. Partnered parents were more likely than partnered nonparents to report a relationship duration of 11–15 years (AR = 2.22) or 21 years or more (AR = 9.11) and less likely to report a duration of 5 years or less (AR = −7.92). Parents were more likely to live with their current partner (AR = 5.47) and be legally married, in a legally registered civil union, or in a registered domestic partnership (AR = 6.65) than nonparents. Parents were also more frequently partnered with a cisgender individual (AR = 5.06) and less frequently with a transgender (AR = −5.87) or nonbinary/genderqueer individual (AR = −3.07). Parents and nonparents did not differ in sex assigned at birth, race/ethnicity, household income, living in poverty, U.S. birth status, and U.S. Census region of residence.

Interaction between gender identity and parenthood status. Transgender parents were significantly older than trans- and cisgender nonparents but significantly younger than cisgender parents. Transgender nonparents (AR = 2.76) and cisgender parents (AR = 2.95) more frequently had a high school diploma or less, whereas cisgender nonparents (AR = 2.93) more frequently attended some college. More cisgender parents (AR = 4.06) lived in nonurban areas, whereas more cisgender nonparents (AR = 4.04) lived in urban areas. More transgender parents reported a bisexual (AR = 2.26) or another sexual orientation (AR = 3.74), whereas fewer reported a straight/heterosexual orientation (AR = −15.70). Conversely, more cisgender parents reported a straight/heterosexual orientation (AR = 5.36), and fewer reported a lesbian/gay (AR = −10.50) or another sexual orientation (AR = −2.39). More transgender nonparents reported a lesbian/gay (AR = 2.82), bisexual (AR = 2.30), or another sexual orientation (AR = 5.37), and fewer reported a straight/heterosexual orientation (AR = −16.66); more cisgender nonparents reported a lesbian/gay sexual orientation (AR = 9.84), and fewer reported a straight/heterosexual orientation (AR = −4.90).

Significantly more cisgender parents (AR = 4.81) were in a relationship, whereas cisgender nonparents (AR = −4.72) and transgender nonparents (AR = −4.00) were less likely to be in a relationship. Among those in a relationship, significantly fewer transgender parents (AR = −2.20) and nonparents (AR = −3.01) had cisgender partners. Cisgender parents were more likely to be in a relationship with cisgender partners (AR = 5.12) and less likely to be in a relationship with transgender (AR = −6.21) or nonbinary/genderqueer partners (AR = −3.14). Finally, cisgender nonparents were more likely partnered with transgender (AR = 5.00) or nonbinary/genderqueer individuals (AR = 2.78) and less likely partnered with cisgender individuals (AR = −4.61).

Differences were found in the length of the current relationship. Transgender parents were less likely to report a relationship length of 16–20 years (AR = −2.62) or 21 years or more (AR = −3.96) but more likely to be partnered for 5 years or less (AR = 2.14). Conversely, cisgender parents were more likely to be in their current relationship from 11 to 15 years (AR = 2.21) or 21 years or more (AR = 9.13) and less likely to be partnered for 5 years or less (AR = −7.93). Transgender nonparents (AR = 9.09) and cisgender nonparents (AR = 7.77) were more likely to be partnered for 5 years or less but less likely to report a relationship length of 11–15 years (AR = −5.63 and −2.18, respectively) or 21 years or more (AR = −32.98 and −8.96, respectively). Finally, fewer transgender nonparents (AR = −23.80) were currently partnered for 16–20 years.

More cisgender parents (AR = 5.47) and fewer cis- (AR = 5.36) and transgender (AR = 4.17) nonparents lived with their current partner. Cisgender parents were more likely legally married, in a legally registered civil union, or in a registered domestic partnership (AR = 6.66); trans- (AR = 12.57) and cisgender (AR = 6.48) nonparents were more likely to be unmarried. No significant interaction was found for sex assigned at birth, race/ethnicity, living in poverty, household income, U.S. birth status, and U.S. Census region of residence.

Health Outcomes

Table 2 shows the group means and error standard of health-related variables, as well as the results of the group-difference tests. For the sake of conciseness, the effects of covariates on each outcome are specified in the note in Table 2.

Main effect of gender identity. Gender identity had a significant effect on almost all health outcomes, with transgender individuals reporting being more psychologically distressed, less satisfied with their lives, and less happy than cisgender individuals. Furthermore, transgender individuals had poorer quality of life and physical health and used drugs more frequently than cisgender individuals. Conversely, trans- and cisgender people reported similar rates of social well-being and alcohol use.

Main effect of parenthood status. No differences were found between parents and nonparents on any of the health outcomes.

Interaction between gender identity and parenthood status. There were no differences in health outcomes by gender identity among parents and nonparents.

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Table 2
Survey-Weighted Differences in Health Outcomes by Gender Identity, Parenthood, and Their Interaction, After Controlling for Respondents' Age, Education, and Relationship Status

	Gender identity			Parenthood			Interaction				
	T (N = 274; 0.4%)	C (N = 1,162; 99.6%)		P (N = 901; 68.1%)	NP (N = 483; 31.9%)		TP (N = 66; 18.8%)	TNP (N = 206; 81.2%)	CP (N = 835; 68.3%)	CNP (N = 277; 31.7%)	
Variables	M (SE)	M (SE)	F	M (SE)	M (SE)	F	M (SE)	M (SE)	M (SE)	M (SE)	F
Psychological distress[a]	1.72 (0.08)	0.87 (0.04)	20.97***	0.78 (0.04)	1.11 (0.07)	0	1.52 (0.16)	1.78 (0.09)	0.78 (0.04)	1.10 (0.07)	1.00
Life satisfaction[b]	3.76 (0.14)	4.79 (0.07)	9.99**	4.86 (0.09)	4.60 (0.11)	1.14	3.97 (0.33)	3.70 (0.16)	4.86 (0.09)	4.61 (0.12)	0.33
Social well-being[c]	4.43 (0.08)	4.68 (0.04)	1.15	4.69 (0.04)	4.67 (0.08)	0.01	4.34 (0.15)	4.45 (0.09)	4.69 (0.04)	4.67 (0.08)	0.47
Happiness[d]	1.80 (0.05)	2.11 (0.03)	6.89**	2.16 (0.03)	2.02 (0.05)	0.01	1.88 (0.11)	1.79 (0.06)	2.17 (0.03)	2.02 (0.05)	0.01
Quality of life[e]	3.16 (0.09)	3.39 (0.04)	6.82**	3.32 (0.04)	3.50 (0.07)	0.56	1.93 (0.27)	2.15 (0.19)	3.32 (0.04)	3.51 (0.07)	0.59
Alcohol use[f]	2.10 (0.16)	2.33 (0.09)	2.43	2.25 (0.11)	2.52 (0.17)	<.01	3.23 (0.21)	3.13 (0.10)	2.25 (0.11)	2.52 (0.17)	0.01
Drug use[g]	4.52 (0.59)	1.84 (0.25)	6.77**	1.81 (0.36)	2.13 (0.29)	0.86	3.24 (0.68)	4.83 (0.72)	1.81 (0.36)	2.10 (0.29)	0.58
Physical health[h]	1.71 (0.26)	1.95 (0.08)	4.22*	2.38 (0.10)	1.21 (0.12)	0.06	2.54 (0.50)	1.51 (0.30)	2.38 (0.10)	1.21 (0.12)	0.73

Note. M = mean; SE = standardized error; T = transgender; C = cisgender; P = parent; NP = nonparent; TP = transgender parent; TNP = transgender nonparent; CP = cisgender parent; CNP = cisgender nonparent. All percentages are weighted using TransPop study weights; all ns unweighted.
[a] N respondents = 1,360. Age: Wald's $F(1,1359) = 55.47^{***}$. Education: Wald's $F(1,1359) = 5.02^{*}$. Relationship status: Wald's $F(1,1359) = 1.96$. [b] N respondents = 1,360. Age: Wald's $F(1,1359) = 21.47^{***}$. Education: Wald's $F(1,1359) = 9.68^{**}$. Relationship status: Wald's $F(1,1359) = 14.58^{***}$. [c] N respondents = 1,360. Education: Wald's $F(1,1359) = 23.48^{***}$. Relationship status: Wald's $F(1,1359) = 2.70$. [d] N respondents = 1,280. Age: Wald's $F(1,1279) = 6.46^{*}$. Education: Wald's $F(1,1279) = 1.44$. Relationship status: Wald's $F(1,1279) = 20.27^{***}$. [e] N respondents = 1,378. Age: Wald's $F(1,1377) = 5.58^{*}$. Education: Wald's $F(1,1377) = 12.84^{***}$. [f] N respondents = 1,360. Age: Wald's $F(1,1359) = 19.63^{***}$. Education: Wald's $F(1,1359) = 4.51^{*}$. Relationship status: Wald's $F(1, 1359) = 3.67$. [g] N respondents = 1,380. Age: Wald's $F(1,1379) = 12.34^{***}$. Education: Wald's $F(1,1379) = 7.76^{**}$. [h] N = 1,380. Age: Wald's $F(1,1379) = 217.55^{***}$. Education: Wald's $F(1,1379) = 10.37^{**}$.
$^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$.

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Power Analysis

For differences in demographics by gender identity, parenthood status, and the interaction between gender identity and parenthood status, power was 0.74–0.97, 0.68–0.97, 0.68–0.96, respectively, for small effects, whereas it was equal to 1.00 for medium and large effects. Also, for differences in health outcomes, power was 0.98–0.99 for small effects, whereas it was equal to 1.00 for medium and large effects.

Discussion

This study is the first to describe the effects of gender identity and parenthood status on demographic characteristics, quality of life, and multiple mental health and health dimensions in a national probability sample of trans- and cisgender people in the United States. Using data from the TransPop study (Meyer et al., 2016), our findings indicated that 18.8% of transgender respondents were parents, with the majority being transgender women (52.5%), about one third transgender nonbinary individuals (35.8%), and roughly one tenth (11.7%) transgender men. Our data revealed a lower frequency of parenthood in transgender people than the rates of 25%–50% reported by nonprobability sample studies (Stotzer et al., 2014). This discrepancy may derive from a number of factors, including the fact that nonprobability samples have limitations associated with data collection and that questions about parenthood status differ across surveys (Stotzer et al., 2014; Walls et al., 2018, 2019).

Although the greater number of transgender women parents compared with transgender men and gender-nonbinary people in our study confirms the trends found in nonprobability U.S. surveys (Grant et al., 2011; Walls et al., 2018, 2019), these data differ from a Canadian study (Pyne et al., 2015) that found that transgender women were less likely to be parents than transgender men. Should the pattern of this Canadian survey recur in further probability studies across diverse geographical locations, it may suggest that culturally specific gendered socialization paths that transgender individuals experience from childhood through gender transition play a role in the likelihood of gender minorities becoming parents. To date, their experiences of gender socialization and the influence of specific (heteronormative) cultural scripts about family and parenthood are still largely unknown. Transgender parents' history of gender socialization should be explored in future population-based surveys, considering prior research on cisgender parents indicating that women are socialized from an early age to place a higher value on parenthood than men (e.g., Yaremko & Lawson, 2007). Such studies would provide valuable information to family practitioners and other clinicians involved in counseling prospective transgender parents about potential obstacles on the path to parenthood.

On average, the transgender parents in our study were in their 50s and significantly older than the other groups. From the minority stress perspective (Meyer, 2003, 2015), this finding is not surprising. Prospective transgender parents have to weigh many additional factors that can limit their parenthood options than their cisgender counterparts, including policies, stigma, and discrimination (Dierckx, Motmans, Mortelmans, & T'sjoen, 2016; Hafford-Letchfield et al., 2019; Pfeffer & Jones, 2020). Further demographics of transgender parents are still largely unknown (Hafford-Letchfield et al., 2019; Pfeffer & Jones, 2020), but our findings that fewer transgender parents reported a heterosexual orientation, a cisgender partner, and a relationship longer than 5 years are in line with prior reports from probability samples on the transgender population in general (Henderson et al., 2019). A detailed discussion of differences in sexuality and relationship status between trans- and cisgender people recruited within the TransPop study can be found in Reisner and colleagues (2020).

Although the TransPop study did not ask how participants became parents, other studies have found that transgender people often report negative experiences and heightened scrutiny by professionals when seeking parenthood, including barriers to assisted reproductive services, bias in family courts adjudicating custody and access claims, and obstacles to adoption and foster care that are associated with the dominant, empirically unfounded conviction that transgender parenthood is detrimental to child adjustment (Cooper, 2013; Dierckx et al., 2016; Farr & Goldberg, 2018; Pfeffer & Jones, 2020; Pyne et al., 2015; Tornello & Bos, 2017; Tornello et al., 2019). This being the case, decisions about parenthood and attempts to become parents are more likely to be postponed among transgender people than cisgender people. Age differences among trans- and cisgender parents, however, might also result from transgender individuals' own diverse personal difficulties in considering parenthood, such as anticipation of judgments from others regarding pregnancy, psychological and bodily issues when imagining parenthood, lack of family support, and potential strain on partnerships, as some research has indicated (Dierckx et al., 2016; Faccio, Bordin, & Cipolletta, 2013; Riggs, Power, & von Doussa, 2016).

We assessed multiple health domains, yet contrary to both of our predictions, after accounting for their age, education, and relationship status, neither trans- nor cisgender parents scored better than trans- and cisgender nonparents on any well-being dimension (Hypothesis 1), nor did transgender parents report lower well-being than the other three groups (Hypothesis 2). Rather, most health dimensions differed across gender identities, with transgender people scoring higher on psychological distress and lower on satisfaction with life, happiness, quality of life, and physical health and reporting more frequent use of drugs, in line with predictions made by the minority stress model (Meyer, 2003, 2015) and prior research on gender minorities (e.g., Downing & Przedworski, 2018; Henderson et al., 2019).

At first glance, these findings clash with parenthood-effects theories (Deci & Ryan, 2008; Hoffman & Hoffman, 1973; Nomaguchi & Milkie, 2003) and research (Nelson et al., 2014; Nomaguchi & Milkie, 2020; Umberson et al., 2010) on cisgender parents and nonparents, which posit that parenthood generally has some effects on health, for better or worse. It is important to mention, however, that the TransPop study was not developed as a parenting study but as a health survey. As such, it did not ask either about the number of children trans- and cisgender parents had or children's relative ages—factors that are known to affect parental health indicators (Nelson et al., 2014; Nomaguchi & Milkie, 2020; Umberson et al., 2010).

Set-point theory (Headey & Wearing, 1989) provides some clues about the lack of a main effect of parenthood status (Hypothesis 1) on health outcomes. Even where parenthood represented a new major life transition for some parents, its effect on trans- and cisgender parents' health likely peaked when the first child was young and became weaker as the child aged or subse-

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quent children were born. Following an initial adaptation to their new parental role and some (negative or positive) parenthood-related effects on their health, trans- and cisgender parents may have returned to their baseline level, and concurrently, other life events (e.g., professional, relational) and factors (e.g., personality traits) might have become more relevant to their adjustment, canceling out potential differences between parents and nonparents.

Given the heterogeneity between parents and nonparents in the current study, we do not have a solid understanding of the different life-course pathways that led them, respectively, to have and not have children and whether and how these pathways affected the well-being of the respondents in each group. That said, a closer consideration of the demand-and-reward theory (Nomaguchi & Milkie, 2003) indicates that parenthood-related costs and benefits tend to decline over time. This implies that even if parenthood exerted some effects on trans- and cisgender parents' health outcomes, these effects might have been undetected at the time of data collection. It cannot be ruled out that the costs and benefits of having children in terms of well-being may have canceled each other out, leading to nonsignificant differences between parents and nonparents (Nelson et al., 2014). As a social role, parenthood provides individuals with personal gratification as well as a sense of purpose and meaning in life, both of which promote health (Hoffman & Hoffman, 1973; Umberson et al., 2010). However, the emotional rewards derived from parenthood are often overshadowed by the demands and stressors associated with the role, particularly when children are young, which may undermine health (Nelson et al., 2014).

Even more unexpected was our finding that transgender parents did not score lower than transgender nonparents and cisgender parents and nonparents on any health-related dimension (Hypothesis 2), despite the social stigma attached to (Pyne et al., 2015) and barriers in routes to (Pfeffer & Jones, 2020; Tornello & Bos, 2017) transgender parenthood. It is important to note that this negative expectation conveys a view of transgender parents as an oppressed, disadvantaged group for whom parenthood adds a further burden to their well-being. This focus on the negative aspects of the minority stress model (Meyer, 2003) ignores the extent to which a person's minority identity (or identities) can serve a vital role in alleviating the negative impact of minority stresses (Meyer, 2015). For transgender people, having children may be a particularly fulfilling and valuable life event (Hoffman & Hoffman, 1973), which increases feelings of autonomy and control and, in turn, improves well-being even in the face of obstacles throughout their parenthood journey. Indeed, parenthood may counteract some effects of stigmatization and may possibly explain the health-related outcomes among transgender parents.

Strengths and Limitations

The availability of a nationally representative sample of transgender parents and nonparents is a unique strength of this study. Few prior population-based studies have asked for respondents' sex assigned at birth along with current gender identity, rendering transgender participants invisible. In contrast, convenience studies were often limited to individuals who were members of transgender community organizations or subscribed to transgender listservs. Furthermore, probability studies allowed for weighting the sample to be similar to the intended target population, whereas in nonprobability sampling, it was not known who received the study solicitation, and therefore biases could not be readily corrected (Krueger et al., 2020).

A further strength is the focus on a range of health-related outcomes, whereas prior research mostly focused on depression as a single indicator of parental mental health (Umberson et al., 2010) and ignored positive dimensions (e.g., happiness, life satisfaction, social well-being) or other indicators of emotional distress, including alcohol and drug use (for exceptions, see Erez & Shenkman, 2016; Goldberg et al., 2019; Shenkman et al., 2020). Finally, much of the existing literature combined gender minorities (e.g., trans, queer) and sexual minorities (e.g., lesbian, gay, bisexual) into the LGBTQ+ acronym—ignoring substantial variations in their experiences, typically with more detriments for members of the former group than the latter (Pfeffer & Jones, 2020). This study represents an initial step in loosening the *T* from the LGBT acronym in order to acknowledge the specific context of transgender parenthood. Future studies on specific stressors (e.g., internalized transphobia, gender identity nondisclosure, childhood gender nonconformity) and protective factors (e.g., interactions with other transgender parents, neighborhood acceptance) characterizing transgender parents' lives will follow this direction.

Some limitations are noteworthy, along with one already mentioned regarding the lack of specific survey questions on parenting (i.e., age of children, parenting stages, paths to parenthood). The cross-sectional nature of the study precluded a clear determination of causality. This is particularly concerning because parents continuously adapt to their role, with subsequent consequences for their health (Umberson et al., 2010). Further, the limited sample size led us to combine transgender women, transgender men, and gender nonbinary people into the same category of transgender parents, obscuring within-group differences (Walls et al., 2018, 2019). As the number of gender diverse parents increases, future research is needed that explores and disaggregates their unique parenting experiences, across their various gender identities. Such investigation would also improve the focus on the associations between parenthood and health outcomes through a gendered lens, insofar as research on cisgender parents necessarily constrains male and female gender identities into fatherhood and motherhood, respectively.

Finally, the probability-sampling approach shared some limitations with nonrepresentative sampling techniques, namely, the reliance on self-identification of the population of interest, in that respondents were required to indicate that they identified as a transgender individual to be included in the sample. Despite the "two-step" approach of asking about assigned sex at birth and current gender identity (Herman, 2014), respondents may have felt apprehensive about identifying as transgender individuals because of stigma. Further, transgender parents may have been unwilling to come out to avoid scrutiny of their parenting capabilities (Cooper, 2013; Farr & Goldberg, 2018; Pyne et al., 2015).

Policy and Clinical Implications

In the United States, transgender people have multiple options to achieve parenthood, yet all methods have challenges (Pyne et al., 2015; Tornello & Bos, 2017). Parents who came out or transitioned after having a child with a spouse or partner have seen their

gender transition raised as a basis to deny or restrict child custody or visitation. In some cases, the courts did not rely on evidence but ruled based on speculations about or assumptions of psychological or social harm associated with having a transgender parent (Cooper, 2013; Farr & Goldberg, 2018). Transgender people who formed families after coming out or transitioning have faced challenges to their legal status as parents, with associated attacks on the validity of their marriages (Cooper, 2013). Likewise, transgender people seeking to conceive, adopt, or foster children have often been turned away by fertility clinics, adoption agencies, and foster care services (Farr & Goldberg, 2018; Pfeffer & Jones, 2020).

For practitioners who are consulted about transgender parenthood, the present study has demonstrated that transgender parents did not differ from transgender nonparents or cisgender parents and nonparents on any of the eight health dimensions we examined. Rather, sustained by the minority stress perspective (Meyer, 2003, 2015), our findings call attention to the need for understanding the potential difficulties transgender parents may experience at the intersection of their multiple minority identities (i.e., as a gender minority in general and as gender minority parent in particular). Because differences in health outcomes were seen only across gender identities, it would be inappropriate for family practitioners or policymakers to assume that problems reported by transgender parents reveal their unsuitability to parent. Rather, such problems are more likely related to stigma and discrimination experiences in a cisgenderist/heterosexist society (Meyer, 2003, 2015).

Mental health professionals are often called upon to testify in family courts; additionally, psychotherapy is often required in order to proceed with gender-affirming medical care. Under these circumstances, it is paramount that trainings incorporate modules addressing sex and gender identity issues, as well as the consequences of discrimination and stigma for health outcomes, because this does not yet happen on a regular basis (Pyne et al., 2015). To the extent that family creation is considered a human right (Ethics Committee of the American Society for Reproductive Medicine, 2015), such an approach is even more vital to prevent transgender parents and their families from experiencing a myriad of underqualified practitioners, as well as to offer adequate and informed support to prospective transgender parents across the diverse array of paths to parenthood available to them.

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